Invloed pKa waarde op de pH bij 1 mol/l zuur

|  |  |  |  |
| --- | --- | --- | --- |
| pKa-waarde | pH | zuur | zuur |
| -6.00 | 0.00 | HBr | Waterstofbromide |
| -3.00 | 0.00 | HCl | Waterstofchloride |
| -8 | 0.00 | HI | waterstofjodide |
| -9.00 | 0.00 | HClO4 | perchloorzuur |
| -3.00 | 0.00 | HCl | zoutzuur |
| -3.00 – 1.92 | 0.00 | H2SO4 | zwavelzuur |
| -1.74 | 0.01 | H3O+ | hydroniumion |
| -1.32 | 0.02 | HNO3 | salpeterzuur |
| 1.42 – 4.21 | 0.75 | H2C2O4 | oxaalzuur |
| 1.92 | 0.98 | HSO4- | waterstofsulfaation |
| 1.92 – 7.20 | 0.98 | H2SO3 | waterstofsulfiet |
| 1.96 – 7.21 – 12.32 | 1.00 | H3PO4 | fosforzuur |
| 2.83 – 5.85 | 1.42 | H2C2O4 | appelzuur |
| 3.00 – 4.50 | 1.51 | C4H4O4 | fumaarzuur |
| 3.13 – 4.76 -5.38 | 1.57 | C6H8O7 | Citroenzuur |
| 3.14 | 1.58 | HF | waterstoffluoride |
| 3.34 | 1.67 | HNO2 | salpeterigzuur |
| 3.74 | 1,87 | HCOOH | Methaanzuur |
| 4.76 | 2.38 | CH3COOH | azijnzuur |
| 6.52 – 10.40 | 3.26 | H2CO3 | waterstofcarbonaat |
| 6.95 – 14.00 | 3.47 | H2S | waterstofsulfide |
| 7.21 – 12.32 | 3.60 | H2PO4- | diwaterstoffosfaation |
| 7.20 | 3.60 | HSO3- | waterstofsulfietion |
| 7.25 | 3.62 | HClO | waterstofhypochloriet |
| 9.25 – 23.00 | 4.62 | NH4+ | Ammoniumion |
| 9.24 – 12.74 | 4.62 | H3BO3 | Boorzuur |
| 9.40 | 4.70 | HCN | Waterstofcyanide |
| 10.40 | 5.20 | HCO3- | carbonaation |
| 12.32 | 6.16 | HPO42- | waterstoffosfaation |
| 14.00 | 6.85 | HS- | waterstofsulfideion |

Invloed pKb waarde op de pH bij 1 mol/l zuur

|  |  |  |  |
| --- | --- | --- | --- |
| pKb-waarde | pH | base | base |
| 15.74 | 7.00 | H2O | water |
| 17.00 | 7.00 | HSO4- | waterstofsulfaation |
| 15.32 | 7.01 | NO3- | nitraation |
| 12.08 | 7.96 | HSO3- | waterstofsulfietion |
| 12.08 – 15.00 | 7.96 | SO42- | sulfaation |
| 12.04 | 7.98 | H2PO4- | diwaterstoffosfaation |
| 10.86 | 8.57 | F- | Fluoride-ion |
| 10.66 | 8.67 | NO2- | nitrietion |
| 10.26 | 8.87 | HCOO- | formiaation |
| 9.79 – 13.58 | 9.10 | C2O42- | oxalaation |
| 9.24 | 9.38 | CH3COO- | acetaation |
| 9.12 | 9.44 | C2H5COO- | propanoaation |
| 7.48 | 10.26 | HCO3- | waterstofcarbonaation |
| 7.05 | 10.47 | HS- | Waterstofsulfide-ion |
| 6.79 – 12.04 | 10.60 | HPO42- | waterstoffosfaation |
| 6.80 – 12.08 | 10.60 | SO32- | sulfietion |
| 6.75 | 10.62 | IO- | hypochlorietion |
| 4.75 | 11.62 | NH3 | ammoniak |
| 4.76 | 11.62 | H2BO3- | diwaterstofboraation |
| 4.60 | 11.70 | CN- | Cyanide-ion |
| 3.60 – 7.48 | 12.20 | CO32- | carbonaation |
| 1.68 – 6.79 – 12.04 | 13.13 | PO43- | fosfaation |
| 0.00 – 7.05 | 13.79 | S2- | Sulfide-ion |
| -1.74 | 13.99 | HO- | Hydroxide-ion |
| -1.74 | 13.99 | KOH | kaliumhydroxide |
| -1.74 | 13.99 | NaOH | natriumhydroxide |
| -10.00 | 14.00 | O22- | Oxide-ion |
| -26.00 | 14.00 | H- | Hydride-ion |
| -9.00 | 14.00 | NH2- | Amide-ion |